

# INTERNATIONAL SEARCH REPORT

PCT/GB 03/05473

<b>A. CLASSIFICATION OF SUBJECT MATTER</b> IPC 7 C07F9/26 C07F9/24		
According to International Patent Classification (IPC) or to both national classification and IPC		
<b>B. FIELDS SEARCHED</b> Minimum documentation searched (classification system followed by classification symbols) IPC 7 C07F		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched		
Electronic data base consulted during the International search (name of data base and, where practical, search terms used) EPO-Internal, CHEM ABS Data, BEILSTEIN Data		
<b>C. DOCUMENTS CONSIDERED TO BE RELEVANT</b>		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DATABASE CHEMABS 'Online! CHEMICAL ABSTRACTS SERVICE, COLUMBUS, OHIO, US; TAWARA, SHINICHIRO ET AL: "Phosphorodiamidous acid ester derivatives" XP002272471 retrieved from STN Database accession no. 109:149797 abstract & JP 62 212395 A2 (NIPPON ZEON CO., LTD., JAPAN) 18 September 1987 (1987-09-18) ----- -/--	1-15
<input checked="" type="checkbox"/> Further documents are listed in the continuation of box C. <input checked="" type="checkbox"/> Patent family members are listed in annex.		
<b>* Special categories of cited documents :</b> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>*A* document defining the general state of the art which is not considered to be of particular relevance</p> <p>*E* earlier document but published on or after the International filing date</p> <p>*L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)</p> <p>*O* document referring to an oral disclosure, use, exhibition or other means</p> <p>*P* document published prior to the International filing date but later than the priority date claimed</p> </div> <div style="width: 45%;"> <p>*T* later document published after the International filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention</p> <p>*X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone</p> <p>*Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.</p> <p>*Z* document member of the same patent family</p> </div> </div>		
Date of the actual completion of the International search 9 March 2004		Date of mailing of the International search report 23/03/2004
Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax (+31-70) 340-3016		Authorized officer Beslier, L

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	HAMAMOTO S. ET AL.: "New approach to the synthesis of deoxyribonucleoside phosphoramidite derivatives" CHEMISTRY LETTERS., no. 8, 1986, pages 1401-1404, XP002272465 JP-CHEMICAL SOCIETY OF JAPAN. TOKYO. the whole document	1-15
X	KRUCZYNSKI L.J. ET AL.: "Phenylfluorophosphoranes: axial-equatorial fluorine exchange in RC6H4PF3H and intermolecular exchange in the PhPF2(H)OMe-MeOH-base system" CANADIAN JOURNAL OF CHEMISTRY., vol. 68, no. 3, 1990, pages 488-491, XP002272466 CANADIAN RESEARCH COUNCIL. OTTAWA. the whole document	1-15
X	HEINICKE J. ET AL.: "Synthese von o-Halogenphenoxy-, o-Halogenphenylthio- und o-Halogen-methylanilinoderivaten der IVb- und Vb-Elemente" JOURNAL FÜR PRAKTISCHE CHEMIE., vol. 325, no. 3, 1983, pages 511-516, XP0008028030 DEWILEY VCH, WEINHEIM. page 511, process (A) and page 514, table 1, first example	1-15
X	NIFANT'EV E.E. ET AL.: "New aspects of the chemistry of pyrrolides of trivalent phosphorus acids" RUSSIAN JOURNAL OF GENERAL CHEMISTRY., vol. 62, no. 7, 20 December 1992 (1992-12-20), pages 1201-1208, XP002272467 USCONSULTANTS BUREAU. Synthesis of compound XIX	1-15
X	KIBARDIN A.M. ET AL.: "Synthesis of ethyl bis(N-butyl-N-isobutenylamido)phosphite and reaction with alpha-chloroacetaldehydes" BULLETIN OF THE ACADEMY OF SCIENCES OF THE USSR. DIVISION OF CHEMICAL SCIENCE., vol. 31, no. 3, 20 September 1982 (1982-09-20), pages 625-627, XP002272468 USCONSULTANTS BUREAU. NEW YORK. preparation of compound (II)	1-15

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>BURGADA R.: "Les réactions du carbonyle avec les aminophosphines X. Effet de substituant dans les réactions d'échange."            BULLETIN DE LA SOCIETE CHIMIQUE DE FRANCE., no. 1, 1971, pages 136-143, XP002272469            FR SOCIETE FRANCAISE DE CHIMIE. PARIS. page 140, experimental part</p>	1-15
X	<p>MITSUNOBU O. ET AL.: "Preparation of carboxylic esters and phosphoric esters by the activation of alcohols"            BULLETIN OF THE CHEMICAL SOCIETY OF JAPAN.,            vol. 44, no. 12, 1971, pages 3427-3430, XP002272470            JP JAPAN PUBLICATIONS TRADING CO. TOKYO. page 3430, left-hand column, last paragraph</p>	1-15
X	<p>WILK A ET AL: "The 4-oxopentyl group as a labile phosphate/thiophosphate protecting group for synthetic oligodeoxyribonucleotides"            TETRAHEDRON LETTERS, ELSEVIER SCIENCE PUBLISHERS, AMSTERDAM, NL,            vol. 42, no. 33,            13 August 2001 (2001-08-13), pages 5635-5639, XP004295829            ISSN: 0040-4039            scheme 1</p>	1-15

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Information on patent family members

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
JP 62212395 A2	18-09-1987	JP 62212395 A	18-09-1987